

Patent  
245/180

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Mandell, Arnold et al.

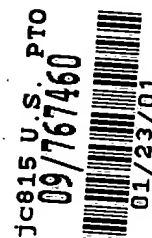
Serial No.: 09/490,702

Filed: January 24, 2000

For: ALGORITHMIC DESIGN OF  
PEPTIDES FOR BINDING AND/OR  
MODULATION OF THE FUNCTIONS OF  
RECEPTORS AND/OR OTHER PROTEINS

Group Art Unit: 1643

Examiner: Not yet assigned



BEST AVAILABLE COPY

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR § 1.97(b)(3)

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement ("IDS") are brought to the attention of the Office. The items are listed on the attached form PTO-1449 and copies are enclosed for the convenience of the Examiner.

The items identified in this IDS may or may not be "material" pursuant to 37 C.F.R. § 1.56. The submission thereof by Applicant is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37

CERTIFICATE OF MAILING  
(37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

September 28, 2000  
Date of DepositCharles M. Doyle  
Name of Person Mailing Paper  
Signature of Person Mailing Paper

Patent  
245/180

C.F.R. § 1.97(h)), or even qualifies as "prior art" under 35 U.S.C. § 102 with respect to this invention unless specifically designated by Applicant as such.

This IDS is believed to be timely in that it is being submitted under 37 C.F.R. § 1.97(b)(3), that is before the mailing of a first Office action on the merits. Thus, no petition or fee is required. However, if the undersigned is in error in this regard, then it is requested that the Office consider this IDS as filed under 37 C.F.R. § 1.97(c).


The Commissioner is hereby authorized to charge any fees required by the filing of these papers to Lyon & Lyon's Deposit Account No. 12-2475.

Respectfully submitted,

LYON & LYON LLP

Dated: September 28, 2000

By:

  
Charles M. Doyle  
Reg. No. 39,175

633 West Fifth Street, Suite 4700  
Los Angeles, California 90071-2066  
(914) 681-8851

Enclosure: PTO Form 1449

BEST AVAILABLE COPY

FORM PTO-1449

LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S  
INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTN: DOC. NO.  
245SERIAL NO.  
09/490,702

## APPLICANT:

Mandell, Arnold et al.

## FILING DATE:

January 21, 2000

## GROUP:

1643

815 U.S. PTO  
09/167460

01/23/01

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
AA						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
AB						

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

AC	Mandell, A.J. (1984) Non-equilibrium behavior of some brain enzyme and receptor systems. <i>Ann. Rev. Pharm. Toxicol.</i> 24:237-274.
AD	Mandell, A.J., Russo, P.V. and Blomgren, B.W. (1987) Complex hydrophobic sequence transformation predicts mutual recognition by polypeptides and proteins. <i>Ann. N.Y. Acad. Sci.</i> 504:88-118.
AE	Mandell, A.J., Selz, K.A. and Shlesinger, M.F. (1997) Mode matches and their locations in the hydrophobic free energy sequences of peptide ligands and their receptor eigenfunctions. <i>Proc. Natl. Acad. Sci.</i> 94:13576-13581.
AF	Mandell, A.J., Selz, K.A. and Shlesinger, M.F. (1997) Wavelet transformation of protein hydrophobicity sequences suggests their memberships in structural families. <i>Physica A</i> 224:254-262.
AG	Mandell, A.J., Selz, K.A. and Shlesinger, M.F. (1997) Hydrophobic free energy eigenfunctions help define continuous wavelet transformations of amino acid sequences of protein families. <i>Proc. Intl. (Fermi) Sch. Phys. CXXXIV</i> , 175-192.
AH	Di Marzo, E.A. and Mandell, A.J. (1997) Phase transition behavior of a linear macromolecule threading a membrane. <i>J. Chem. Physics</i> 107:5510-5514.
AI	Mandell, A.J., Owens, M.J., Selz, K.A., Morgan, W.N., Shlesinger, M.F. and Nemeroff, C.G. (1998) Mode matches in hydrophobic free energy eigenfunctions predict protein-protein interactions. <i>Biopolymers</i> 46:89-101.
AJ	Selz, K.A., Mandell, A.J., and Shlesinger, M.F. (1998) Hydrophobic free energy eigenfunctions of pore, channel and transporter proteins contain $\beta$ -burst patterns. <i>Biophysical J.</i> 75:2332-2342.
AK	Mandell, A.J., Selz, K.A. and Shlesinger, M.F. (1998) Transformational homologies in amino acid sequences suggest membership in protein families. <i>J. Stat. Phys.</i> 93:673-697.
AL	Mandell, A.J., Selz, K.A. and Shlesinger, M.F. (1999) Linear and entropic transformations of the hydrophobic free energy sequence help characterize a novel brain polypeptide: CART. In (M.T. Batchelor and L. Wille, eds.), <i>Statistical Physics on the Edge of the Twenty-First Century</i> . World Scientific, NJ, pp. 131-152.
AM	Manavalan, P. and Ponnuswamy, P.K. (1978) Hydrophobic character of amino acid residues in globular proteins. <i>Nature</i> 275:673-674.
AN	White, Stephen H. (1994) Global Statistics of Protein Sequences: Implications for the Origin, Evolution, and Prediction of Structure. <i>Annu. Rev. Biophys. Biomol. Struct.</i> 23:407-439.
AO	Doyle, P.M. (1995) Combinatorial Chemistry in the Discovery and Development of Drugs. <i>J. Chem. Tech. Biotechnol.</i> 64:317-324.
AP	Gordon, E.M., Barrett, R.W., Dower, W.J., Fodor, S.P.A. and Gallo, M.A. (1994) Applications of Combinatorial Technologies to Drug Discovery. 2. Combinatorial Organic Synthesis, Library Screening Strategies, and Future Directions. <i>J. Med. Chem.</i> 37(10):1385-1401.
AQ	Houghton, R.A. (1993) The Broad Utility Of Soluble Peptide Libraries For Drug Discovery. <i>Gene</i> 137:7-11.

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant